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ABSTRACT

A project was conducted to (1) determine how to install comprehensive career education programs on a districtwide basis when development and field testing have been completed, and (2) determine how to transport effective career education programs from school districts that have them to school districts that need them. Project objectives were met through the involvement of nine school districts in the Alliance of Career and Vocational Education. The National Center for Research in Vocational Education staff provided training for career education directors and career education curriculum materials for teachers to facilitate program implementation in the nine districts. As a result of project activities, it was found that four major factors influenced the transportability and installation of Alliance programs: (1) goal and model congruence, (2) cost, (3) ease of installation, and (4) staff and community involvement. Evaluation data indicated that the career education programs were received equally well by staff and students in the five ongoing districts and four new districts. (LRA)

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ED187861

A DEMONSTRATION:

EFFECTING INCREMENTAL IMPROVEMENTS

IN K-12 CAREER EDUCATION

Final Report

The National Center for Research
in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

CE 025 079

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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Major Activities

The objectives for the project, "A Demonstration: Effecting Incremental Improvements in K-12 Career Education," were as follows.

1. To determine how to install comprehensive career education programs on a districtwide basis when development and field testing have been completed.

    a. To demonstrate and document the process of districtwide installation of the Career Exploration Program and the Career Planning System in five Alliance school districts in which field testing has already taken place.

    b. To evaluate the effectiveness of the comprehensive installation process employed by the school districts.

2. To determine how to transport effective career education programs from school districts that have them to school districts that need them.

    a. To implement the Career Exploration Program and the Career Planning System and to evaluate their effectiveness with students and staff in four school districts not previously involved with the Alliance.

    b. To demonstrate and document the process involved in installing the programs in the four additional school districts.

The objectives were met through the involvement of nine school districts in the Alliance for Career and Vocational Education. The five "ongoing" school districts participating in the first objective were the Charleston (South Carolina) County Public Schools, Madison (Wisconsin) Metropolitan School District, Milwaukee (Wisconsin) Public Schools, Philadelphia (Pennsylvania)

Public Schools, and the Salinas (California) Union High School District. The four "new" school districts involved in the second objective were the Detroit (Michigan) Public Schools, Montgomery County (Maryland) Public Schools, New York City Board of Education, and Tucson (Arizona) Unified School District.

In order to accomplish the objectives specified above, a number of activities took place. These activities are presented in Figure 1 in terms of the objectives that they accomplished.

The objectives that were stated in the original proposal did not change during the course of the project. Progress related to learner outcomes and process objectives are presented under "Evaluation" in this report.

Participant Summary

Project participants are reported in "Table 1. Career Education Program Participant Summary."

FIGURE 1

Summary of Project Activities

Activities	Related Objectives			
	1a	1b	2a	2b
Career education directors and staff development coordinators received training at the National Center in August to prepare for program implementation in their districts.	x		x	
Career education directors developed installation plans indicating arrangements for staff development, program evaluation, and community involvement in 1978-79.	x	x	x	x
The National Center printed and delivered one hundred eighty (180) classroom sets of career education curriculum materials for use by the students involved in the program. Appendix A contains a description of the career education programs used in the project.	x		x	
The district career education directors and staff development coordinators trained approximately twenty teachers and counselors in each district to implement and field test the program.	x		x	
The Alliance programs were implemented in the nine school districts.	x		x	
Career education advisory committees were utilized in the districts to involve the community in the career education endeavor and to provide support to the school staff members involved in the project.	x		x	
School districts conducted conferences for LEA and SEA representatives in their areas in order to demonstrate the programs being implemented.	x			x
Upon completion of program implementation, students in program and equivalent control groups took posttests designed to measure the cognitive and affective impact attributable to the programs. Teachers and students completed instruments to show their appraisal of the programs they had experienced.		x	x	

FIGURE 1 (continued)

Activities	Related Objectives 1a	1b	2a	2b
National Center project staff conducted site visits in the four "new" districts and two of the ongoing districts to gather data for the case study to be written on the topic of the transportability of career education programs. School district administrators, career education directors and coordinators, and teachers were interviewed.	x	x	x	x
National Center project staff processed and analyzed the test data and other information received from the nine school districts.	x	x	x	x
National Center project staff developed the case study of the transportability process.	x	x	x	x
National Center staff developed the final project report.	x	x	x	x

TABLE 1

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

CAREER EDUCATION PROGRAM

PARTICIPANT SUMMARY

NOTE. Participants include those DIRECTLY served by the project or, in the case of most parents and persons in the business/labor industry community, who actively assist in project implementation. "Actively assist" includes efforts such as serving as resource persons, serving on Advisory Groups, providing work experience, etc.

FORM APPROVED
OMB NO. 51-R1187

NUMBER OF PARTICIPANTS (see NOTE above) WHO ARE	RACE/ETHNICITY (all Participants including Handicapped, Gifted and Talented, and Low Income)						OF THE TOTAL (column 6) NUMBER WHO ARE			OF THE TOTAL (column 6) NUMBER WHO ARE	
	AMERICAN INDIAN OR ALASKAN NATIVE (1)	ASIAN OR PACIFIC ISLANDER (2)	BLACK/ NEGRO (3)	CAUCASIAN/ WHITE (4)	HISPANIC (5)	TOTAL (sum of columns (1) through (5)) (6)	HANDICAPPED (7)	GIFTED AND TALENTED (8)	LOW INCOME (9)	MALE (10)	FEMALE (11)
STUDENTS											
ELEMENTARY (K-6)											
MIDDLE/JUNIOR HIGH (7-9)	0	0	1690	2540	450	4680	720	240	2106	2481	2199
SENIOR HIGH (10-12)											
2-YEAR COLLEGE											
4-YEAR COLLEGE											
ADULTS (non-matriculated)											
SUB-TOTAL											
EDUCATIONAL PERSONNEL											
TEACHERS						180					
COUNSELORS						45					
ADMINISTRATORS						18					
MEMBERS OF THE BUSINESS/ LABOR/INDUSTRY COMMUNITY											
PARENTS											
OTHER (specify)											
TOTAL						4923					

OE FORM 467, 2/76

Evaluation

Overview

The evaluation aspect of the project consisted of two major components. Those components and the major related questions that were addressed are summarized in Table 2.

TABLE 2

AN OVERVIEW OF THE PROJECT EVALUATION COMPONENTS AND RELATED QUESTIONS

COMPONENT	RELATED QUESTIONS
I. Evaluation of program installation in the five ongoing Alliance districts	1. How effective were the staff development sessions in training teachers (and others) to use the indicated career education materials?
	2. Were the beneficial effects of the respective programs in terms of student impact still evident following their districtwide installation?
	3. How effective were the district-wide installation efforts in meeting their proposed goals?
II. Evaluation of program installation in the four "new" districts	4. How effective were the staff development sessions in training the "demonstration" teachers (and others) to use the indicated career education materials?
	5. Were the beneficial effects of the respective programs (in terms of their student impact) still evident when they were installed in districts that were not involved in their development?
	6. How effective were the trans-portability efforts in terms of meeting their proposed goals?

In the materials that follow, the data collection procedures and instrumentation employed during the evaluation are described, the evaluation results are reported on a component-by-component basis, and several general conclusions regarding the observed evaluation findings are discussed.

Data Collection Procedures/Instrumentation

The initial evaluation component specified in Table 2 is concerned with (a) assessing the efficacy and effectiveness of the installation processes occurring in the five ongoing Alliance districts that cooperated in the project and (b) documenting/describing the dissemination processes defined and operationalized via those various installation efforts.

As indicated in Table 2, this component was operationalized in terms of three broad questions. The first of those questions, which dealt with the effectiveness of the districts' respective staff development activities, involved the collection of several types of evaluative data. Those data include the following:

- cognitive and affective performance scores for the teachers who participated in the respective staff development programs and
- quantitative summaries of the teachers' perceptions of the relative value and utility of the staff development programs as they relate to the use of the various project-related career education programs.

Figure 2 provides an overview of the associated data collection activities and their sequencing as related to assessing the effectiveness of the installation efforts in the cooperating Alliance districts.

FIGURE 2

An Overview of the Strategy for Evaluating the Alliance Districts' Inservice Efforts

	DISTRICTS:			
	(1) Charleston, SC		(5) Salinas, CA	
INTERVENTIONS/ACTIVITIES	Career Exploration Program	Career Planning Program	Career Exploration Program	Career Planning Program
1. Prior to initiation of staff development program	---	---	---	---
2. Implementation of staff development	Career Exploration Inservice	Career Planning Inservice	Career Exploration Inservice	Career Planning Inservice
3. Immediately following staff development	X_1*	X_2*	X_1	X_2
4. Using the respective career education programs	Use of Career Exploration Program with students	Use of Career Planning Program with students	Use of Career Exploration Program with students	Use of Career Planning Program with students
5. After completing the career education programs	Y*	Y	Y	Y

*The indicated instruments are described in the accompanying text.

The instruments listed in Figure 2 (copies of which can be found in Appendix B) are as follows:

X_1 - a criterion test dealing with the concepts, components, etc., in the Career Exploration Program. That instrument contains a cognitive segment designed to assess the respondents' knowledge/understanding of the key career education and pedagogical concepts that were to be covered during the training program and an affective segment designed to assess the respondents' general attitudes toward the training session.

X_2 - a criterion test dealing with the Career Planning System, which is parallel in content and structure to X_1.

Y - a brief questionnaire that provides the respondents with an opportunity to critique the inservice training they received based upon their subsequent experiences using the materials that represented the foci of those training efforts.

The data generated via X_1 and X_2 have been summarized in tabular form and are presented in the section that follows. The questionnaire data were tabulated, descriptive statistics generated, and the resultant summaries presented along with the criterion test results in the next section.

The data collection activities related to the question of the beneficial impact of the respective career education programs upon students following the districtwide dissemination/implementation efforts were undertaken via a series of strategies such as those depicted in Figure 3. A review of that figure reveals that:

1. The basic data collection scheme employed with the Career Exploration Simulations, both the

Standard and Resource versions, and the Career Planning System - Standard version was something akin to the "nonequivalent control group" design described by Campbell and Stanley (1963). Under this design scheme the basic sampling units were classes that were assigned to "program" and "control" conditions.

2. The data collection scheme employed for the Career Planning System - Resource version was the "one-sample pre-/post-design" (Campbell and Stanley, 1963). Under this scheme each class of students exposed to the CPS was required to complete the criterion measures on a pre- and a post-basis. In addition, no data were collected from a comparison or "control" group as occurred in the previous instances.

The various instruments listed in Figure 3 (samples of which can be found in Appendix C) are the same as those utilized during the earlier field tests of the respective programs and are as follows:

X_1 - a cognitive criterion test (which differs by simulation) used to assess student knowledge/ understanding of important concepts, procedures, etc., covered in the simulation;

Y_1 - an affective performance criterion (which differs by simulation) used as an indicant of student interest, awareness, etc., relative to the occupations dealt with in the simulation;

S_1 - student perceptions of "what" and "how much" they learned from the simulation, which were collected via a Student Evaluation Form that was completed by the program students;

T_1 - teacher perceptions of "how much" their students learned and the "attitudes" toward the simulation to which they were exposed;

X_2 - cognitive criterion test (which differs by simulation) used to assess student knowledge/ understanding of the concepts, procedures, etc., dealt with in their respective simulations; (The cognitive criterion tests used with the resource versions of the various

FIGURE 3

An Overview of the Strategy for Assessing Program Impact of Students in the Alliance Districts

CAREER EDUCATION PROGRAM ELEMENT	DISTRICTS	GROUPS		INTERVENTIONS * (1) Before using career education program	(2) (Instruction)	(3) After using career education program
•Simulations-Standard Version	(1)Charleston	Program	Teacher P1/Class P1		(Career Exp. Program)	X_1, Y_1, S_1, T_1
			Teacher Pi/Class Pi		(Career Exp. Program)	X_1, Y_1, S_1, T_1
		Control	Teacher C1/Class C1			X_1, Y_1
			Teacher Ci/Class Ci			X_1, Y_1
	(4)Salinas	Program	Teacher P1/Class P1		(Career Exp. Program)	X_1, Y_1, S_1, T_1
			Teacher Pi/Class Pi		(Career Exp. Program)	X_1, Y_1, S_1, T_1
		Control	Teacher C1/Class C1			X_1, Y_1
			Teacher Ci/Class Ci			X_1, Y_1
•Simulations-Resource Version	(1)Charleston	Program	Teacher P1/Class P1		(Career Exp. Program)	X_2, Y_1, S_1, T_1
			Teacher Pi/Class Pi		(Career Exp. Program)	X_2, Y_1, S_1, T_1
		Control	Teacher C1/Class C1			X_2, Y_1
			Teacher Ci/Class Ci			X_2, Y_1
	(4)Salinas	Program	Teacher P1/Class P1		(Career Exp. Program)	X_2, Y_1, S_1, T_1
			Teacher Pi/Class Pi		(Career Exp. Program)	X_2, Y_1, S_1, T_1
			Teacher C1/Class C1			X_2, Y_1
			Teacher Ci/Class Ci			X_2, Y_1
•Career Planning System-Standard Version	(1)Charleston	Program	Teacher P1/Class P1		(CPS Program)	X_3, S_2, T_2
			Teacher Pi/Class Pi		(CPS Program)	X_3, S_2, T_2
		Control	Teacher C1/Class C1			X_3
			Teacher Ci/Class Ci			X_3
	(4)Salinas	Program	Teacher P1/Class P1		(CPS Program)	X_3, S_2, T_2
			Teacher Pi/Class Pi		(CPS Program)	X_3, S_2, T_2
		Control	Teacher C1/Class C1			X_3
			Teacher Ci/Class Ci			X_3
•Career Planning System-Resource Version	(1)Charleston	Program	Teacher P1/Class P1	Y_2	(CPS Program)	Y_2, S_2, T_2
			Teacher Pi/Class Pi	Y_2	(CPS Program)	Y_2, S_2, T_2
	(4)Salinas	Program	Teacher P1/Class P1	Y_2	(CPS Program)	Y_2, S_2, T_2
			Teacher Pi/Class Pi	Y_2	(CPS Program)	Y_2, S_2, T_2

*The indicated instruments are described in the accompanying text.

simulations are not equivalent to tests employed in the standard versions of the same title--e.g., the test for Wilawala - Standard is not the same as the test for Wilawala - Resource.)

X_3 - cognitive test used to assess student knowledge/understanding of certain key concepts, interests, etc., associated with up to four occupations that he/she has studied while working with the Standard version of the Career Planning System; (The test that one individual takes may or may not differ slightly, moderately, or completely from that taken by someone else--see the test instructions presented in Appendix C.)

S_2 - student perceptions of "what" and "how much" they learned from the CPS--parallel in content and orientation to S_1; and

T_2 - teacher perceptions of "how much" their students learned and their attitudes toward the CPS--parallel in content and orientation to T_1.

Y_3 - an affective-oriented criterion test completed by students who were exposed to the resource version of the CPS. (It is similar in orientation and focus to an abbreviated version of Crites' "Career Maturity Inventory" and has a relatively low reading level.)

The student impact data as measured by the previous instruments were tabulated and summarized by career education program across districts. The comparisons among program and "control" classes were analyzed using analyses of variance techniques--i.e., a nested or hierarchical analysis approach was employed.

The third question considered in relation to this component--"How effective were the districtwide installation efforts in

meeting their (respective) proposed goals?"--was addressed via the following kinds of data and data collection activities:

1. The summary results obtained via the activities described in relation to the two initial questions were used to indicate the effects of the various districtwide installation efforts with regard to teacher learning and attitudes, teacher assessments of the utility and value of the inservice sessions in preparing them to use the various career education materials, and students' learning and attitudes.

2. Records of relevant activities in the five cooperating Alliance districts were reviewed and on-site interviews with participating teachers and other professional staff were conducted in two of the districts in an effort to further document and describe the respective installation efforts. The data collected via these reviews and interviews dealt with the major variables to be included in the various district installation plans. Those different variables are listed in Figure 4.

Once the various types of data noted above were collected and summarized, they were compared with the projections and related estimates specified in the respective districtwide installation plans. The observed discrepancies between the summary/documentary data and the projections/estimates contained in the plans were used as the basis for addressing the third question raised under this component of the evaluation.

In addition to providing the preceding kinds of evaluative information, the various district installation plans and related sets of summary data were combined to form the basis for a case study of the installation process. The case study systematically describes and documents the respective installation strategies/plans and points out their inherent strengths and weaknesses based upon the observed empirical data. It is also accompanied

FIGURE 4

Characteristics of an Effective
Installation Process

1. The process is responsive to the district's perceived needs.

2. Communication is targeted to a variety of viewpoints within the community.

3. The methods of introducing the career education programs to staff not involved in the original development and testing process are consistent with the philosophy that the programs should be continually adapted and expanded to meet the classroom needs perceived by the teacher. In this way a feeling of ownership is created.

4. The objectives for installation are attainable over short periods of time so that staff can experience relatively rapid success with the process.

5. The budget for materials and staff development is sufficient to enable teachers to receive training and programs on a timely basis.

6. The installation process contributes to systematic renewal within the district.

7. Staff responsible for coordination and staff development receive their training early enough so that they can carry out their responsibilities confidently and adequately.

8. The time devoted to coordination is sufficient to ensure that teachers' needs are being met. Given the general scarcity of resources in most local agencies, the amount of time and effort required for successful coordination of career education installation is designed to be minimal.

9. The process contains opportunities for endorsements from teachers and counselors, administrators, students, and community representatives.

10. The process involves leaders in the schools and community.

11. Advisory councils and other methods for community involvement are established so that the community seeks ways actively to support and expand the program.

by recommendations for enhancing the efficiency and effectiveness of comprehensive installation efforts on a districtwide level.

The second major component of the evaluation focused upon assessing the effectiveness of the installation procedures/efforts in the four "new" districts that participated in the project. It, like component one, was operationalized via three broad questions. Those questions and the related data collection procedures/instrumentation were quite similar in focus and intent to those described for component one (e.g., the criterion measures used to assess program impact upon students were equivalent). Therefore, detailed descriptions of those procedures and related instrumentation are not repeated at this point.

Figure 5 provides a summary of the numbers of districts, teachers/professional staff members, and classes/students that were involved in the two components of the evaluation and provided usable data.

Evaluation Findings - Component One

As indicated earlier, this component of the evaluation dealt with the effectiveness of the installation efforts in the ongoing districts that cooperated in the project. It was operationalized via three major questions. In the materials that follow, these questions and the related data results are presented and described.

"How effective were the staff development sessions in training teachers (and others) to use the indicated career

FIGURE 5

Summary of Agencies and Individuals
Providing Usable Evaluation Data

COMPONENT OF EVALUATION	CAREER EDUCATION PROGRAM ELEMENT	NUMBERS OF AGENCIES/INDIVIDUALS INVOLVED (1) Districts	(2) Teachers and Staff*	(3) Classes/ Students
I. Districtwide Installation Efforts in "Ongoing" Districts**	Career Exploration, Standard Version	4	39	51/1012
	Career Exploration, Resource Version	4		11/147
	Career Planning, Standard Version	4	7	12/301
	Career Planning, Resource Version	4		3/25
II. Installation Efforts in "New" Districts	Career Exploration, Standard Version	4	52	60/1414
	Career Exploration, Resource Version	4		15/186
	Career Planning, Standard Version	4	21	10/210
	Career Planning, Resource Planning	4		2/27

*The staff development tests did not differentiate between users of standard and resource versions.
**One district did not return usable data.

education materials?" This question was addressed via the collection of both cognitive and affective criterion data from the affected teachers and other professional staff members in each of the cooperating sites and obtaining their perceptions of the value and utility of the inservice training they received via a short questionnaire. The cognitive criterion data are summarized in Table 3 and the affective data, in Table 4.

TABLE 3

STAFF DEVELOPMENT COGNITIVE TEST RESULTS

	Ongoing Districts		
Programs	N	Mean Correct	% Correct
Career Exploration Simulations	39	9.16	76
Career Planning System	7	9.17	76

Tables 3 and 4 indicate that teachers and other staff performed uniformly well on the cognitive tests for the two programs and had comparable affective responses to the programs. Based on the evaluation results, it can be concluded that the staff development sessions were effective in training staff to use the career education materials and that teachers had positive attitudes concerning their impending use of the programs.

"Were the beneficial effects of the respective programs in terms of student impact still evident following their district-wide installation?" A diversity of complementary types of data

TABLE 4

STAFF DEVELOPMENT AFFECTIVE RESPONSES

Teachers responded to the items listed by indicating whether they: 5 - Strongly Agreed; 4 - Agreed; 3 - Neither Agreed nor Disagreed; 2 - Disagreed; 1 - Strongly Disagreed.

Response Items	Ongoing Districts, Mean Response	
	Career Exploration	CPS
1. I feel that I understand the major purposes and goals of the program.	4.28	4.25
2. I now feel that I have an understanding of the basics of career development theory.	4.04	4.25
3. It is important to make students aware of how basic skills relate to job performance.	4.80	4.75
4. Career education concepts should be infused into instruction in academic subjects.	4.52	4.75
5. Career education concepts could be easily infused into my curriculum.	4.32	4.50
6. Simulation/CPS is a good technique for career exploration.	4.60	4.25
7. Simulation/CPS is a good tool for teaching students about jobs.	4.40	4.75
8. Simulation/CPS will fit into my curriculum well.	4.28	4.50
9. Simulation/CPS will reinforce the basic skills that I teach.	4.16	4.00
10. The staff development leaders conducted this session effectively.	4.52	4.50

was collected in an effort to respond to this question. Probably the most basic and potentially valuable of these data were the affective and cognitive criterion test data collected from both "control" and program students who were involved in the evaluation effort. Table 5 contains several descriptive statistics for those various data sets as well as summaries of the comparative analyses involving the performance levels of "control" and program classes/groups.

The information presented in Table 5 suggests that the same dramatic student impact observed for the respective career education programs during pilot testing and field testing were not as evident during the current more widespread intra-district installation efforts. Only in the case of the CPS were the cognitive performance levels of the program classes significantly greater than the performance levels of their respective "control" classes. In the case of the affective criterion no such significant differences were found. Although in the majority of instances the observed performance levels for program classes were somewhat higher than the comparable performance levels of their "controls," only in the two instances noted above were the observed differences of statistical significance.

Any of a diversity of explanations could account for the equivocal results found in Table 5. Several of the more obvious of those explanations are as follows.

TABLE 5

SUMMARY OF STUDENT CRITERION DATA - [redacted] DISTRICTS

PROGRAM	PROGRAM ELEMENT	GROUP	NUMBERS OF Classes	NUMBERS OF Students	AVERAGE CRITERION PERFORMANCE AND RELATED t-VALUES: Career Knowledge Group Mean	Career Knowledge t-Value	Affective Assessments Group Mean	Affective Assessments t-Value
•Career Exploration Simulations	(A) Standard Versions							
	(1) Cedar City	Program	4	76	10.8	.2	73.8	.6
		Control	4	85	10.5		71.7	
	(2) Convention	Program	4	77	13.4	.0	83.7	.7
		Control	4	82	13.4		80.1	
	(3) Ills of Milltown	Program	7	215	12.7	2.6*	37.8	.6
		Control	4	81	10.2		36.3	
	(4) Shirttails	Program	7	117	15.4	1.4	43.6	1.5
		Control	4	70	13.0		40.2	
	(5) Wilawala	Program	7	110	14.7	.2	51.8	-.5
		Control	6	99	15.2		53.1	
	**All Standard Versions	—	—	—	—	1.7	—	1.3
	(B) Resource Versions							
	(1) Convention	Program	3	40	10.8	-.5	75.6	-.4
		Control	1	14	11.9		79.6	
	(2) Shirttails	Program	3	35	13.1	.6	43.4	.7
		Control	3	42	11.1		40.6	
	(3) Wilawala	Program	1	16	15.9	N.C.	48.1	N.C.
		Control	0	0	N.C.			
	**All Resource Versions	—	—	—	—	.1	—	.7
•Career Planning System	(C) CPS-Standard Version	Program	8	202	2.5	2.6*	N.C.	N.C.
		Control	4	99	2.0		N.C.	
	(D) CPS-Resource Version	Pretest	3	25	N.C.	N.C.	38.8	1.0
		Posttest			N.C.		39.9	

*Significant at X = .05 level; N.C. - Not Completed
**The composite test statistics reported are S-tests (not t-tests) based upon the aggregation of the respective sets of independent t-values.

(1) The career education programs under consideration are not that effective in terms of impacting upon student performance as measured by the selected criteria, which is directly counter to the pilot and field test results obtained over the last five years.

(2) The inservice and related installation delivery mechanisms were not effective in developing the appropriate teacher/staff interests and usage patterns, thereby resulting in less effective utilization of the career education programs than occurred during the earlier tests.

(3) The control classes and teachers in the districts are "contaminated" in the sense that the earlier testing efforts, related publicity, and initial impetus for developing the various career education materials have had an effect of one sort or another upon their criterion-related performance and attitudes. (Some support for this contention can be observed by comparing the average performance levels reported for the "control" classes in the "ongoing" and "new" districts. Such a comparison reveals that in the majority of cases reported the performance levels of the "control" classes in the ongoing districts are higher than those of the "control" classes in the new districts. See Tables 5 and 11.)

(4) The sample sizes, i.e., numbers of classes of students, included in the project, and considered via the reported analyses were too small and the resulting test statistics lacked sufficient

power to detect differences among the program and "control" groups on the performance criteria.

(5) Some combination of two or more of the preceding explanations could account for the observed results.

Given the plausibility of these potential explanations and the rather equivocal set of findings presented in Table 5, it cannot be argued that the various districtwide installation procedures/efforts were all effective in terms of the desired impact on students. Instead, it should be noted that those efforts did appear to be effective in certain instances and of questionable/limited effectiveness in others.

The findings shown in Table 5 are supported by selected perceptual data/assessments obtained from both program students and teachers/staff who used the various career education programs in the cooperating districts. Those perceptual judgments are summarized in Tables 6, 7, and 8. Generally speaking, the perceptual information reported suggests that the respondents felt that students learned some acceptable level of knowledge about jobs, workers, and work-related interests from their exposure to the various career education materials.

In summary, the available data related to the impact of the "installed" programs on student performance are slightly positive, but equivocal. That is, they suggest that the district-wide installation procedures/efforts in the cooperating Alliance districts were differentially effective in terms of bringing

TABLE 6

SUMMARY OF PROGRAM STUDENT PERCEPTUAL DATA—
SIMULATIONS - ONGOING DISTRICTS

ITEM (%AGE) RESPONSE DISTRIBUTIONS*

		(A) Standard Versions						(B) Resource Versions			
ITEMS	RELATED RESPONSES	(1) Cedar City	(2) Convention	(3) Ills of Milltown	(4) Shirttails	(5) Wilsmela	All Standard Versions	(1) Convention	(2) Shirttails	(3) Wilsmela	All Resource Versions
Has this simulation helped you learn more about what workers do in their jobs?	A. Yes, very much.	16	41	12	28	35	23	13	34	NC	28
	B. Yes.	39	33	41	39	35	38	60	49	NC	52
	C. Yes, a little.	35	16	39	26	21	30	20	14	NC	16
	D. No.	6	4	3	4	7	5	0	0	NC	0
	E. I can't say.	4	6	5	3	2	4	7	3	NC	4
Has this simulation helped you learn more about what different workers like and what they can do?	A. Yes, very much.	27	30	13	18	24	20	33	23	NC	26
	B. Yes.	36	43	40	53	46	43	33	40	NC	38
	C. Yes, a little.	25	14	29	16	16	22	13	26	NC	22
	D. No.	9	10	14	10	6	10	7	3	NC	4
	E. I can't say.	3	3	4	3	8	5	14	8	NC	10
Has this simulation helped you learn about the jobs you like and the jobs you don't like?	A. Yes, very much.	24	36	14	19	32	23	20	34	NC	30
	B. Yes.	36	36	42	48	44	41	27	40	NC	36
	C. Yes, a little.	21	10	27	12	14	19	29	14	NC	18
	D. No.	10	10	12	11	8	11	13	12	NC	12
	E. I can't say.	9	8	5	10	2	6	13	0	NC	4
Has this simulation helped you think about jobs you might choose?	A. Yes, very much.	15	31	10	18	19	16	40	23	NC	28
	B. Yes.	29	20	29	28	41	30	40	34	NC	36
	C. Yes, a little.	22	17	27	23	14	22	20	6	NC	10
	D. No.	30	25	28	23	17	25	0	28	NC	20
	E. I can't say.	4	7	6	8	9	7	0	9	NC	6

*The numbers specified represent percentages rounded to the nearest whole percent.
NC - Not Completed (insufficient data).

TABLE 7

SUMMARY OF PROGRAM STUDENT PERCEPTUAL DATA—
CPS - ONGOING DISTRICTS

ITEMS	RELATED RESPONSES	ITEM (%AGE) RESPONSE DISTRIBUTIONS: Standard Version	Resource Version
Has the CPS helped you learn about the kinds of work done in different jobs?	A. Yes, very much.	34	50
	B. Yes, some.	52	48
	C. Yes, but very little.	7	2
	D. No, not at all.	2	0
	E. I can't say.	5	0
Has the CPS helped you learn more about how your personal interests and abilities are related to the work that is done in different jobs?	A. Yes, very much.	31	50
	B. Yes, some.	52	43
	C. Yes, but very little.	8	2
	D. No, not at all.	3	0
	E. I can't say.	6	5
Has the CPS helped you learn about which jobs you might like and which jobs you might not like as well?	A. Yes, very much.	49	56
	B. Yes, some.	42	38
	C. Yes, but very little.	6	3
	D. No, not at all.	2	3
	E. I can't say.	1	0
Has the CPS encouraged you to think about your future?	A. Yes, very much.	60	36
	B. Yes, some.	26	50
	C. Yes, but very little.	7	2
	D. No, not at all.	4	0
	E. I can't say.	3	12
Has the CPS helped you *decide which high school courses and extracurricular activities you should consider choosing?	A. Yes, very much.	33	41
	B. Yes, some.	39	46
	C. Yes, but very little.	17	0
	D. No, not at all.	9	3
	E. I can't say.	2	10

*For the resource version, this item was restated as follows: ". . . decide which studies and activities you should choose?"

TABLE 8

SUMMARY OF TEACHERS' PERCEPTIONS OF STUDENT INTEREST AND PERFORMANCE--
SIMULATIONS AND CPS - ONGOING DISTRICTS

ITEM (WAGE) RESPONSE DISTRIBUTIONS

		SIMULATIONS										CPS	
		Standard Versions						Resource Versions					
ITEMS	RELATED RESPONSES	(1) Cedar City	(2) Convention	(3) Ills of Milltown	(4) Shirttails	(5) Wilsmals	All Standard Versions	(1) Convention	(2) Shirttails	(3) Wilsmals	All Resource Versions	Standard Version	Resource Version
How would you rate students' overall response to the *simulation/CPS--how well did most students like using the materials and spending their class time working with the *simulation/CPS?	A. Excellent	0	0	0	0	25	5	100	0	N.C.	33	20	20
	B. Well above average	33	80	100	43	25	50	0	50	N.C.	33	70	40
	C. Slightly above average	67	20	0	29	25	25	0	0	N.C.	0	10	20
	D. Minimally acceptable	0	0	0	14	25	15	0	50	N.C.	33	0	20
	E. Poor	0	0	0	14	0	5	0	0	N.C.	0	0	0
How would you rate student goal achievement (in terms of increases career knowledge, improved career decision-making skills, increased self-awareness)?	A. Adequately accomplished for most students.	0	20	0	33	25	21	0	0	N.C.	0	30	20
	B. Adequately accomplished for some, minimally accomplished for others.	100	60	100	33	50	58	100	50	N.C.	67	60	60
	C. Minimally accomplished for most.	0	0	0	17	25	10	0	0	N.C.	0	10	0
	D. Little achievement for most.	0	20	0	17	0	11	0	50	N.C.	33	0	20
	E. No achievement for most.	0	0	0	0	0	0	0	0	N.C.	0	0	0
CPS ONLY													
How would you rate the impact the CPS has upon the degree of student involvement in the career development/career choice process (as revealed by their construction of a high school plan)?	A. Very high - compared to past classes, the factors considered, the time spent, and the interests demonstrated.	—	—	—	—	—	—	—	—	—	—	0	20
	B. High - compared to past classes, greater maturity indicated for some students.	—	—	—	—	—	—	—	—	—	—	80	40
	C. Medium - compared to past classes, greater maturity indicated for a few students.	—	—	—	—	—	—	—	—	—	—	20	20
	D. Low - compared to past classes, greater maturity indicated for no students.	—	—	—	—	—	—	—	—	—	—	0	0
	E. I can't say.	—	—	—	—	—	—	—	—	—	—	0	20
	NUMBER OF RESPONDENTS	3	5	1	7	4	20	1	2	0			

*Specific simulation title was given on the teacher's questionnaire.

about dramatically/significantly higher program student performance levels on the selected cognitive and affective criteria. Due to limitations in the related sample sizes, some caution needs to be exercised in over-emphasizing this lack of positive results and concluding that the related installation efforts were ineffectual or only minimally effectual. Rather, it would probably be more appropriate to suspend judgment pending the securance of a less equivocal data set, if possible.

"How effective were the districtwide installation efforts in meeting their proposed goals?" Given the preceding discussion, one can conclude that the staff development efforts were effective in reaching the proposed goals but that student cognitive results were equivocal at best. This would be alarming except for the fact that prior evaluation results and program assessments have led all of the ongoing school districts to the conclusion that the Alliance programs should be installed.

Each of the districts' installation plans are presented in the case study* that is one of the products resulting from the project. THe plans indicate that the districts are confident enough to proceed with various forms of program installation. In Milwaukee, a decision has been made to install the Career Planning System districtwide in all middle/junior high schools

*"From Salinas to New York City: Case Studies in Career Education
or
An Analysis of the Transportability of Career Education Programs in the Alliance for Career and Vocational Education"

and to utilize the resource materials as the major career education component for exceptional education students. In Philadelphia, the resource materials and staff development will be provided to ninety special education teachers during 1979-80 and external funding is being sought to disseminate the other materials to the many junior high schools in the system. In Madison, the Career Planning System is being used with all eighth-grade students and in Salinas, the Career Planning System and selected career exploration programs are being used in career guidance centers. Finally, Charleston County is continuing to expand the use of all materials as funding permits.

It is clear that involvement in the project being evaluated here was important to the ongoing school districts of the Alliance. The project gave those districts an opportunity to involve more staff and students and to keep their career education "momentum" going.

Evaluation Findings - Component Two

This component of the evaluation effort was directed toward assessing the effectiveness of the installation procedures/efforts employed in the four new districts that participated in the project. It, like the first component, was operationalized via three major questions. Those questions and the related findings are presented and described in the materials that follow.

"How effective were the staff development sessions in training the 'demonstration' teachers (and others) to use the

indicated career education materials?" The data collected relative to this question consisted of cognitive and affective test scores for the affected teachers and other professional staff, as well as their perceptions of the value and utility of the inservice training they received based upon their actual experiences using the related career education materials. The related summary of those data is presented in Tables 9 and 10.

TABLE 9

STAFF DEVELOPMENT COGNITIVE TEST RESULTS

	New Districts		
Programs	N	Mean Correct	% Correct
Career Exploration Simulations	52	8.71	73
Career Planning System	21	8.83	74

As was the case with the ongoing districts, staff in the new districts showed comparable mastery of the basic concepts presented for the exploration simulations and the Career Planning System. Table 10 indicates that new district staff approached program installation with positive attitudes. On-site interviews conducted at the end of the school year indicated that staff felt prepared to use the programs and did not require assistance during the implementation process.

TABLE 10

STAFF DEVELOPMENT AFFECTIVE RESPONSES

Teachers responded to the items listed by indicating whether they 5 - Strongly Agreed; 4 - Agreed; 3 - Neither Agreed nor Disagreed; 2 - Disagreed; 1 - Strongly Disagreed.

Response Items	New Districts, Mean Response	
	Career Exploration	CPS
1. I feel that I understand the major purposes and goals of the program.	4.07	4.26
2. I now feel that I have an understanding of the basics of career development theory.	3.79	4.22
3. It is important to make students aware of how basic skills relate to job performance.	4.75	4.75
4. Career education concepts should be infused into instruction in academic subjects.	4.69	4.82
5. Career education concepts could be easily integrated into my curriculum.	4.30	4.36
6. Simulation/CPS is a good technique for career exploration.	4.41	4.49
7. Simulation/CPS is a good tool for teaching students about jobs.	4.05	4.21
8. Simulation/CPS will fit into my curriculum well.	3.93	4.54
9. Simulation/CPS will reinforce the basic skills that I teach.	4.14	4.28
10. The staff development leaders conducted this session effectively.	4.33	4.55

"Were the beneficial effects of the respective programs (in terms of their student impact) still evident when they were installed in districts that were not involved in their development?" The evaluation activities related to this question resulted in the collection of a diversity of complementary types of data. The most basic and rigorous of those data were the affective and cognitive criterion test scores obtained from both the program and "control" classes/students who cooperated in the evaluation effort. Table 11 contains several descriptive statistics for those various data sets, as well as summaries of related analyses involving comparisons between the criterion performance levels of the participating "control" and program classes/groups.

The results exhibited in Table 11 suggest that the various career education programs did have a positive impact upon the affected students. The only possible exception to this general conclusion relates to the various resource versions of the Career Exploration simulations. In that instance only the "overall" test statistics for the affective criterion were statistically significant. One possible explanation for this exception relates to the relatively small sample sizes involved in using these simulations. As a result of these sample size limitations, the power of the related test statistics would be relatively low, thereby decreasing the probability of detecting significant differences between the program and "control" groups.

TABLE 11

SUMMARY OF STUDENT CRITERION DATA - N [redacted]

PROGRAM	PROGRAM ELEMENT	GROUP	NUMBERS OF Classes	NUMBERS OF Students	AVERAGE CRITERION PERFORMANCE AND RELATED t-VALUES Career Knowledge Group Mean	Career Knowledge t-Value	Affective Assessments Group Mean	Affective Assessments t-Value
•Career Exploration Simulations	(A) Standard Versions							
	(1) Cedar City	Program	9	206	15.8	3.9*	81.1	3.2*
		Control	4	91	11.9		72.8	
	(2) Convention	Program	7	170	14.8	3.0*	83.7	1.7
		Control	7	175	12.8		77.6	
	(3) Ills of Milltown	Program	6	159	12.3	3.2*	41.2	2.6*
		Control	6	131	9.4		35.4	
	(4) Shirttails	Program	6	122	13.7	1.7	43.0	2.1*
		Control	6	140	11.3		39.3	
	(5) Wilawala	Program	5	123	17.4	.2	53.4	.8
	**All Standard Versions	—	—	—	—	5.1*	—	4.4*
	(B) Resource Versions							
	(1) Convention	Program	2	16	12.9	.9	84.1	2.0
		Control	1	6	10.7		55.8	
	(2) Shirttails	Program	2	29	16.7	1.9	45.2	1.5
		Control	2	25	9.7		38.2	
	(3) Wilawala	Program	4	62	19.2	.7	53.3	1.7
		Control	4	48	18.3		48.4	
	**All Resource Versions	—	—	—	—	.9	—	2.0*
•Career Planning System	(C) CPS-Standard Version	Program	6	123	2.9	2.1*	N.C.	N.C.
		Control	4	87	2.4		N.C	
	(D) CPS-Resource Version	Pretest	2	27	N.C.	N.C.	35.5	5.1*
		Posttest			N.C.		39.6	

*Significant at X = .05 level; N.C. - Not Completed

**The composite test statistics reported are S-tests (not t-tests) based upon the aggregation of the respective sets of independent t-values.

The less rigorous perceptual data obtained from the participating teachers and students generally supports the results observed in Table 11. Summaries of those data are presented in Tables 12, 13, and 14.

Overall, the evaluation results related to the impact of the selected career education programs on students' performance/behavior are quite positive. They suggest quite unequivocally that those programs and the related inservice/installation efforts in the new districts were effective in bringing about the desired improvements in the affected classes/students' cognitive and affective criterion performance levels.

"How effective were the transportability efforts in terms of meeting their proposed goals?" This question is identical to the third question considered under component one.

Based on the evaluation results presented above, one can conclude that the staff development was conducted effectively in the four new districts and that implementation of most of the career education programs resulted in significant student achievement and positive assessments by students and teachers. These positive results were anticipated because of similar results that had been achieved in ongoing districts during prior years.

It should be noted, however, that statistically significant cognitive development resulting from use of the resource materials was anticipated but not achieved in new as well as ongoing districts. It is felt that this situation may be attributable

TABLE 12

SUMMARY OF PROGRAM STUDENT PERCEPTUAL DATA—
SIMULATIONS - NEW DISTRICTS

ITEM (%AGE) RESPONSE DISTRIBUTIONS

		(A) Standard Versions						(B) Resource Versions			
ITEMS	RELATED RESPONSES	(1) Cedar City	(2) Convention	(3) Ills of Milltown	(4) Shirttails	(5) Wilmala	All Standard Versions	(1) Convention	(2) Shirttails	(3) Wilmala	All Resource Versions
Has this simulation helped you learn more about what workers do in their jobs?	A. Yes, very much.	31	28	28	39	40	32	39	21	24	25
	B. Yes.	49	43	32	39	37	41	23	54	38	40
	C. Yes, a little.	16	21	30	17	11	19	30	25	19	22
	D. No.	2	3	6	1	5	4	0	0	10	6
	E. I can't say.	2	5	4	4	7	4	8	0	8	7
Has this simulation helped you learn more about what different workers like and what they can do?	A. Yes, very much.	12	26	21	18	18	19	15	8	19	16
	B. Yes.	50	50	36	56	49	48	61	71	41	52
	C. Yes, a little.	28	13	29	16	17	21	8	21	22	20
	D. No.	6	7	11	6	9	8	8	0	9	6
	E. I can't say.	4	4	3	4	7	4	8	0	9	6
Has this simulation helped you learn about the jobs you like and the jobs you don't like?	A. Yes, very much.	33	34	24	35	33	32	38	8	24	22
	B. Yes.	35	38	32	37	38	36	39	59	40	44
	C. Yes, a little.	22	13	29	18	15	20	15	29	19	21
	D. No.	7	11	11	7	12	9	0	4	14	10
	E. I can't say.	3	4	4	3	2	3	8	0	3	3
Has this simulation helped you think about jobs you might choose?	A. Yes, very much.	14	21	16	23	26	19	15	17	19	18
	B. Yes.	30	36	20	36	27	30	31	50	35	38
	C. Yes, a little.	23	19	25	17	20	21	23	33	19	23
	D. No.	28	20	35	21	15	25	15	0	17	13
	E. I can't say.	5	4	4	3	12	5	16	0	10	8

TABLE 13

SUMMARY OF PROGRAM STUDENT PERCEPTUAL DATA—
CPS - NEW DISTRICTS

ITEMS	RELATED RESPONSES	ITEM (%AGE) RESPONSE DISTRIBUTION	
		Standard Version	Resource Version
Has the CPS helped you learn about the kinds of work done in different jobs?	A. Yes, very much.	19	43
	B. Yes, some.	57	45
	C. Yes, but very little.	17	10
	D. No, not at all.	3	2
	E. I can't say.	4	0
Has the CPS helped you learn more about how your personal interests and abilities are related to the work that is done in different jobs?	A. Yes, very much.	27	38
	B. Yes, some.	31	45
	C. Yes, but very little.	24	10
	D. No, not at all.	8	5
	E. I can't say.	10	2
Has the CPS helped you learn about which jobs you might like and which jobs you might not like as well?	A. Yes, very much.	38	47
	B. Yes, some.	32	44
	C. Yes, but very little	15	9
	D. No, not at all.	10	0
	E. I can't say.	5	0
Has the CPS encouraged you to think about your future?	A. Yes, very much.	44	41
	B. Yes, some.	33	41
	C. Yes, but very little.	16	7
	D. No, not at all.	3	7
	E. I can't say.	4	4
Has the CPS helped you *decide which high school courses and extracurricular activities you should consider choosing?	A. Yes, very much.	24	28
	B. Yes, some.	28	51
	C. Yes, but very little.	21	12
	D. No, not at all.	23	2
	E. I can't say.	4	7

*For the resource version, this item was restated as follows: ". . . decide which studies and activities you should choose?"

TABLE 14

SUMMARY OF TEACHERS' PERCEPTIONS OF STUDENT INTEREST AND PERFORMANCE—
SIMULATIONS AND CPS - NEW DISTRICTS

		ITEM (%AGE) RESPONSE DISTRIBUTIONS											
		SIMULATIONS											
		Standard Versions						Resource Versions					
ITEMS	RELATED RESPONSES	(1) Cedar City	(2) Convention	(3) Ills of Milltown	(4) Shirttails	(5) Wilmsala	All Standard Versions	(1) Convention	(2) Shirttails	(3) Wilmsala	All Resource Versions	CPS Standard Version	CPS Resource Version
How would you rate students' overall response to the *simulation/CPS—how well did most students like using the materials and spending their class time working with the *simulation/CPS?	A. Excellent	0	33	20	25	20	22	0	0	33	14	14	0
	B. Well above average	67	17	60	0	60	39	0	0	33	14	29	50
	C. Slightly above average	0	33	20	75	20	30	50	0	33	29	14	0
	D. Minimally acceptable	33	17	0	0	0	9	50	100	0	43	43	50
	E. Poor	0	0	0	0	0	0	0	0	0	0	0	0
How would you rate student goal achievement (in terms of increased career knowledge, improved career decision-making skills, increased self-awareness)?	A. Adequately accomplished for most students.	0	50	0	40	25	26	0	0	33	14	14	0
	B. Adequately accomplished for some, minimally accomplished for others.	100	17	80	60	50	57	50	0	67	43	43	50
	C. Minimally accomplished for most.	0	33	20	0	25	17	50	100	0	43	29	50
	D. Little achievement for most.	0	0	0	0	0	0	0	0	0	0	14	0
	E. No achievement in most.	0	0	0	0	0	0	0	0	0	0	0	0
CPS ONLY													
How would you rate the impact the CPS has upon the degree of student involvement in the career development/career choice process (as revealed by their construction of a high school plan)?	A. Very high - compared to past classes, the factors considered, the time spent, and the interest demonstrated.	—	—	—	—	—	—	—	—	—	—	0	0
	B. High - compared to past classes, greater maturity indicated for some students.	—	—	—	—	—	—	—	—	—	—	14	0
	C. Medium - compared to past classes, greater maturity indicated for a few students	—	—	—	—	—	—	—	—	—	—	29	50
	D. Low - compared to past classes, greater maturity indicated for no students.	—	—	—	—	—	—	—	—	—	—	0	0
	E. I can't say.	—	—	—	—	—	—	—	—	—	—	57	50
	NUMBER OF RESPONDENTS	3	6	5	5	5	24	2	2	3	7	7	2

to inappropriate testing procedures and/or to the fact that implementation usually took longer than teachers had planned and that therefore they ran out of time and did not complete the testing process. This situation should be examined by the Alliance in the future.

Finally, on-site interviews in the new districts revealed that two plan to further install Alliance programs in the future, and two do not. Plans are underway in Montgomery County and New York City to make all program components available for use in the attendance areas of both districts. Inservice training will also be provided. In Tucson and Detroit, however, organizational variables and the lack of a state of readiness for Alliance programs will preclude extended use in the immediate future. This situation, and the various reasons for it, are examined in detail in the case study cited earlier. The conclusion drawn in that document is that many variables, other than program effectiveness and positive response, have a significant bearing on a school district's readiness and willingness to install the program.

General Summary

The basic purpose of the project evaluation activities was to assess the overall efficacy and effectiveness of two sets of career education program installation efforts in two distinctly different groups of school districts. In one of the sets of districts the materials being used were originally developed/

tested and were being installed on a more comprehensive, district-wide basis. The second set of districts was not involved in the original development process and was attempting to install the selected career education programs for the first time. The data collection procedures, activities, and analyses undertaken in regard to these two sets of district-related installation efforts served to define the major components of the evaluation.

The major results and related conclusions evolving from the two indicated evaluation components have been discussed in detail in preceding sections of the evaluation report. Additional information pertaining to decisions to further install Alliance programs is presented in the case study emanating from the project.

Dissemination Activities

Two major types of dissemination were planned for the project. One involved conferences that the nine school districts conducted for a minimum of ten state and local education agencies in each of their areas, for the purpose of demonstrating their career education programs and the benefits being derived from the project. The second dissemination strategy involved the National Center's preparation of a case study focusing on the transportability of career education programs and drawing on the experience of the nine school districts in 1978-79 as an example of the transportability process.

The school districts conducted the demonstration conferences as planned and some of the people in attendance have requested more information about the project from the National Center. These individuals will receive copies of the case study as will approximately five hundred state, intermediate, and local agencies. The purpose of disseminating the case study is to demonstrate effective processes for transporting and installing career education programs. The draft of the case study is in the final review stages and should be printed and mailed by November 15, 1979.

Special Activities

As discussed under "Evaluation," selected components of the Alliance's career education program were field tested with educable mentally handicapped (EMH) students. In addition, Spanish versions of several components were provided for review and use in six of the school districts.

As noted in Table 1, the project served approximately seven hundred twenty (720) educable mentally handicapped students in grades 7-9 in nine school districts. The objectives for these students were to: (a) identify a variety of occupations that exist within a cluster area; (b) perform tasks like those that workers do on the job; (c) describe how one's own interests and abilities match interests and abilities of workers in various jobs. In order to accomplish these objectives, the students

were involved in the Alliance's career exploration simulations and/or Career Planning System, both of which have been modified for use with educable mentally handicapped students.

Table 1 also indicates the number of Spanish-speaking students involved in the program. Students in "Career Planning System - Spanish" used the translated version of the program. Students involved in "Shirttails - Spanish," "Convention - Spanish," and "Wilawala - Spanish," used the English version of the program with the assistance of English-Spanish glossaries. The objectives for these students were the same as for English-speaking students.

Finally, it should be noted that Alliance materials have been judged to be free of race and sex stereotyping by the school districts involved in the Alliance since its inception five years ago. The National Center and Alliance districts have been very careful to ensure that the programs would be free of bias and would include an appropriate balance by sex and race in the careers being portrayed.

Financial Status Report

The report is contained in Table 15.

TABLE 15

OMB APPROVAL NO. 29-R02

FINANCIAL STATUS REPORT

1. FEDERAL AGENCY AND ORGANIZATIONAL ELEMENT: U.S. Office of Education (Office of Career Education)

2. FEDERAL GRANT NO. OR OTHER IDENTIFYING NO.: Contract No. G0078C0019

3. NAME AND ADDRESS OF GRANTEE ORGANIZATION:
Ohio State University Research Foundation/
Natl. Ctr. for Research in Vocational Education
1960 Kenny Road
Columbus, Ohio 43210

4. EMPLOYER IDENTIFICATION NO.: 31-602-5986

5. GRANTEE ACCOUNT NO. OR IDENTIFYING NO.: N/A

6. FINAL REPORT: [X] YES [ ] NO

7. BASIS OF REPORT: [ ] CASH [X] ACCRUED EXPENDITURES

8. PROJECT PERIOD (Month, Day, Year): FROM 7 1 78 TO 6 30 79

9. REPORT PERIOD (Month, Day, Year): FROM 7 1 78 TO 12 31 78

10. STATUS OF FUNDS	PROGRAMS - FUNCTIONS - ACTIVITIES (1)	(2)	(3)	(4)	(5)	(6)	TOTAL
a. Total outlays previously reported	57,661.15						
b. Total program outlays this period	34,938.85						
c. LESS: Program income credits	0.00						
d. Net program outlays this period	34,938.85						
e. Total program outlays to date	92,600.00						
f. LESS: Non-Federal share of program outlays	0.00						
g. Total Federal share of program outlays	92,600.00						
h. Total unpaid obligations	0.00						
i. LESS: Non-Federal share of unpaid obligations	0.00						
j. Federal share of unpaid obligations	0.00						
k. Total Federal share of outlays and unpaid obligations	92,600.00						
l. Total Federal funds authorized	92,600.00						
m. Unobligated balance of Federal funds	0.00						

11. INDIRECT EXPENSE: a. TYPE OF RATE (Mark box)
[ ] PROVISIONAL [ ] FINAL
[ ] PREDETERMINED [X] FIXED

b. RATE: 48.39% of Salaries & Wages; 4% of Consultant Cost

c. BASE: $21,518 S&W; $ 9,450 Consultants

d. TOTAL AMOUNT: $10,791

e. FEDERAL SHARE: $10,791

12. REMARKS (Attach additional sheets if necessary)

13. Certification - I certify that to the best of my knowledge and belief this report is correct and complete and that all outlays and unpaid obligations are for the purpose set forth in the grant award documents.

NAME AND TITLE: Dr. Brian Fitch, Project Dir.

TELEPHONE: AREA CODE 614 NUMBER 486-3655 EXT. 398

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE REPORT IS SUBMITTED: October 15, 1979

NEW-6017

Project Abstract

Project Number: 554AH80590

Contract Number: G0078C0019

Nature of Report: Final

Project Title: "A Demonstration: Effecting Incremental Improvements in K-12 Career Education"

Period Covered by this Report: 7/1/78 - 6/30/79

Category of Project: Incremental Improvements in K-12 Career Education Programs

Name of Project Director: Dr. Brian Fitch

Name and Address of Grantee:

The Ohio State University Research Foundation/
National Center for Research in Vocational Education
1314 Kinnear Road
Columbus, Ohio 43212
(614) 486-3655

The objectives for the project, "A Demonstration: Effecting Incremental Improvements in K-12 Career Education," were as follows.

1. To determine how to install comprehensive career education programs on a districtwide basis when development and field testing have been completed.

    a. To demonstrate and document the process of districtwide installation of the Career Exploration Program and the Career Planning System in five Alliance school districts in which field testing has already taken place.

    b. To evaluate the effectiveness of the comprehensive installation process employed by the school districts.

2. To determine how to transport effective career education programs from school districts that have them to school districts that need them.

    a. To implement the Career Exploration Program and the Career Planning System and to evaluate their effectiveness with students and staff in four school districts not previously involved with the Alliance.

    b. To demonstrate and document the process involved in installing the programs in the four additional school districts.

The objectives were met through the involvement of nine school districts in the Alliance for Career and Vocational Education. The five "ongoing" school districts participating in the first objective were the Charleston (South Carolina) County Public Schools, Madison (Wisconsin) Metropolitan School District, Milwaukee (Wisconsin) Public Schools, Philadelphia (Pennsylvania) Public Schools, and the Salinas (California) Union High School District. The four "new" school districts involved in the second

objective were the Detroit (Michigan) Public Schools, Montgomery County (Maryland) Public Schools, New York City Board of Education, and Tucson (Arizona) Unified School District.

In order to accomplish the objectives specified above, a number of activities took place. These activities are presented in Figure 1 in terms of the objectives that they accomplished.

As a result of project activities, it was found that four major factors influenced the transportability and installation of Alliance programs. These were (1) goal and model congruence, (2) cost, (3) ease of installation, and (4) staff and community involvement. These factors or characteristics are presented in Figure 2 in terms of their relationship to both process and product.

Data from the various evaluation efforts indicated that the career education programs were received equally well by staff and students in the five "ongoing" districts and four "new" districts. All five of the ongoing districts established plans for expanded program installation during the 1979-80 school year. Two of the "new" districts also planned to further install the programs. The two that did not plan on further installation cite lack of model congruence or cost as the major reasons, even though teachers and students found the programs to be acceptable.

FIGURE 1

Summary of Project Activities

Activities	Related Objectives 1a	1b	2a	2b
Career education directors and staff development coordinator received training at the National Center in August to prepare for program implementation in their districts.	x		x	
Career education directors developed installation plans indicating arrangements for staff development, program evaluation, and community involvement in 1978-79.	x	x	x	x
The National Center printed and delivered one hundred eighty (180) classroom sets of career education curriculum materials for use by the students involved in the program. Appendix A contains a description of the career education programs used in the project.	x		x	
The district career education directors and staff development coordinators trained approximately twenty teachers and counselors in each district to implement and field test the program.	x		x	
The Alliance programs were implemented in the nine school districts.	x		x	
Career education advisory committees were utilized in the districts to involve the community in the career education endeavor and to provide support to the school staff members involved in the project.	x		x	
School districts conducted conferences for LEA and SEA representatives in their areas in order to demonstrate the programs being implemented.	x			x
Upon completion of program implementation, students in program and equivalent control groups took posttests designed to measure the cognitive and affective impact attributable to the programs. Teachers and students completed instruments to show their appraisal of the programs they had experienced.		x	x	

FIGURE 1 (continued)

Activities	Related Objectives 1a	1b	2a	2b
National Center project staff conducted site visits in the four "new" districts and two of the ongoing districts to gather data for the case study to be written on the topic of the transportability of career education programs. School district administrators, career education directors and coordinators, and teachers were interviewed.	x	x	x	x
National Center project staff processed and analyzed the test data and other information received from the nine school districts.	x	x	x	x
National Center project staff developed the case study of the transportability process.	x	x	x	x
National Center staff developed the final project report.	x	x	x	x

FIGURE 2

Characteristics of
Transportable Career Education Programs

CHARACTERISTICS	PROCESS	PRODUCT
1. Goal and Model Congruence		
a. Career education has been or can be endorsed.	x	
b. Program model is acceptable.	x	x
c. Program goals are compatible with existing curriculum goals		x
2. Cost		
a. Costs for initial installation are acceptable.	x	x
b. Long-range costs appear acceptable.	x	x
3. Ease of Installation		
a. Installation is attainable over a short period.	x	x
b. Organizational structure is clear.	x	
c. Coordinators are adequately trained.	x	
d. Coordination time is sufficient and requires minimal time.	x	
e. Training for staff installing the program is sufficient and requires minimal time.	x	
f. Sense of ownership can be developed.		x
g. Prior evaluation indicates likelihood of success.	x	x
4. Staff and Community Involvement		
a. Communication is targeted to relevant groups.	x	
b. Community involvement is part of the program.	x	x
c. Program can be endorsed by school and community leaders.	x	x
d. Program will contribute to systematic staff renewal.	x	x

x = Characteristic involves process and/or product

Appendix A

Career Education Materials

Career education materials being used in the U.S.O.E. project have been developed by the Alliance for Career and Vocational Education and include several career exploration simulations and the Career Planning System. These materials are described briefly below.

Career Exploration Simulations

The Alliance for Career and Vocational Education has developed several simulations, each depicting a major topic from an occupational cluster. These simulations--which include worksheets, filmstrips, cassette tapes, illustrated student booklets, and other resource materials--enable students to experience the work roles of occupational endeavors. This opportunity is provided through the students' solving of carefully selected and arranged work problems adapted from actual situations.

Alliance simulations each require approximately 15 instructional hours and may be implemented in a variety of subject areas. Students work in groups as they perform work functions, and either part or all of the students in a classroom may be involved in the simulation activity.

Simulations being field tested in this project and their related subject areas include the following:

SIMULATION	CLUSTER	SUBJECT AREAS
Shirttails* Independent retail stores are operated. Worker roles cover the functions of buying, selling, store operations, and controlling.	Trade and Finance	Mathematics, Business, Social Studies
Convention* The staff of a hotel and restaurant prepare for a large convention. Worker roles include reservation clerk, housekeeper, chef, cashier/auditor, maid, cook, waiter/waitress, banquet manager, and customer.	Personal Services	Home Economics, Mathematics, Business-related courses
Wilawala Lake Community* A housing development is planned and designed. Job functions include exterior design, interior design, plumbing design, electrical wiring design, and landscape design.	Construction	Industrial Arts, Art
Ills of Milltown Workers in the department of environmental health and protection deal with several different types of pollution in the city of Milltown. Worker roles include air, water, noise, and soil pollution technicians.	Health and Welfare	Science, Health

*These simulations have two English versions: one for use in regular classrooms or classrooms in which special needs students are mainstreamed (Revised Edition), and the other for use in classrooms made up of special needs students (Resource Edition). There is also a Spanish version of each of these simulations.

SIMULATIONS	CLUSTER	SUBJECT AREAS
Trouble in Cedar City Local government workers plan for the location of a new highway, which has become a controversial issue. Worker roles include mayor, landscape architect, communicator, environmental planner, neighborhood planner, design engineer, traffic engineer, and city engineer.	Government	Civics, Social Studies, Government, Science

Career Planning System

The Career Planning System (CPS) is an individualized program designed to help eighth- and ninth-grade students plan a high school program. They do this on the basis of their interests and abilities and information about occupations related to their interests. CPS is implemented in such subject areas as language arts, social studies, and careers classes and requires approximately 15 instructional hours during the school year.

The CPS contains the following materials:

Program Introduction
A set of ten transparencies to aid the teacher in introducing students to the CPS, its purpose, the way it works, and what the student can expect to gain from the program.

Interest Sort Cards
The Interest Sort Cards are a set of statements about daily activities ("I like to . . .") that the student sorts according to his degree of interest in them. On the back of each card is the name of a "Probe" to which the interest relates.

13 Probes
These folders are organized around kinds of worker activities, such as arranging, helping, and building and making. They "probe" into the most salient aspects of the particular area of work and briefly introduce four occupations that exemplify the area. A list of the Probes and occupations is presented in the following section.

52 Activities
For each of the occupations introduced in the Probes there is a representative Activity for the student to perform: a brief work simulation intended to give the student a glimpse of part of the worker's job.

Activity Envelopes
For Activities that require consumable work materials (worksheets, charts, diagrams, etc.), there is an Activity envelope containing copies of each item. Not all Activities have Activity Envelopes.

52 Occupational Briefs
These illustrated vignettes of workers (those introduced in the Probes) provide details about occupations and about working conditions. Each Brief also provides an outline for preparation for the occupation it describes--high school courses and activities and preparation after high school. Each Brief is numbered and corresponds to the Activity with the same number. Booklets are also color coded: all pieces related to a particular kind of worker activity are the same color.

Student Guide
At the core of the CPS is the Student Guide. It serves several purposes:

- to help guide the student through the CPS;
- to provide a central record of the student's experiences, reactions, and developing interests;
- to cause the student to reflect upon his CPS experiences and to synthesize those experiences into a growing awareness of self and work; and
- to provide the basis for developing a plan for the high school program.

Guide for Teachers and Counselors
This guide provides information about the nature and function of the CPS, alternative strategies for its implementation, the role of the teacher and the counselor in relation to the CPS, and procedures for evaluating materials. In addition, suggestions for supplementary activities related to values clarification, decision making, and other career planning topics are provided for the teacher or counselor who wishes to initiate individual or group activities and discussion.

The following is a list of CPS interest groups and the associated occupations.

1. Advising

   Lawyer
   Teacher
   Travel Agent
   Employment Counselor

2. Arranging

   Interior Designer
   Hair Stylist
   Architect
   Fashion Designer

3. Building and Making

   Carpenter
   Painter
   Roofer
   Drafter

4. Helping

   Waiter
   Teller
   Police Officer

5. Maintaining and Repairing

   Mechanic
   Plumber
   Appliance Repairer
   Sanitation Worker

6. Operating Equipment

   Computer Service Technician
   Telephone Operator
   Cook
   Pilot

7. Performing

   Actor
   Musician
   Disc Jockey
   Model

8. Performing Clerical Duties

   Secretary
   Cashier
   Sales Clerk
   File Clerk

9. Persuading

   Public Relations Worker
   Insurance Salesperson
   Advertising Account Executive
   Real Estate Salesperson

10. Thinking in Pictures

    Medical Illustrator
    Cartoonist
    Display Artist
    Commercial Artist

11. Using Information About the Environment

    Environmental Technican
    Fish and Game Warden
    Farmer
    Meteorologist

12. Working with Numbers and Symbols

    Medical Laboratory Assistant
    Computer Programmer
    Cartographer
    Accountant

13. Writing

    Copywriter
    Newspaper Reporter
    Technical Writer
    Film Critic

In addition to the regular classroom version (Revised Edition) of the Career Planning System, there is also a Resource Edition of the program designed for use with special needs students.

Appendix B

Staff Development Tests

STAFF DEVELOPMENT EVALUATION FORM
CAREER EXPLORATION SIMULATIONS

Please fill in the name of your school and your school district. Then circle the correct answer for each question.

School_____

School District_____

1. Most career development theorists agree that career development occurs in what sequence?

   a. career exploration, career awareness, career preparation
   b. career preparation, career exploration, career awareness
   c. career awareness, career preparation, career exploration
   d. none of the above

2. The major goal of career exploration is for students to:

   a. learn how their interests and abilities match those needed on the job.
   b. choose a job.
   c. learn employability skills.
   d. select a high school course of study.

3. The career exploration program is designed for:

   a. college-bound students.
   b. students bound for two-year postsecondary programs.
   c. students bound for vocational schools.
   d. all of the above.

4. Infusion of career education concepts would be most likely to occur in what subject area?

   a. language arts
   b. industrial arts
   c. math
   d. all of the above

5. What is the rationale for using simulation as a strategy for career exploration?

   a. simulation is a good technique for teaching basic skills
   b. simulation is a good placement technique
   c. simulation allows students to "try out" occupations
   d. simulation is a technique that prepares students to perform real jobs.

6. Alliance simulations are:

   a. organized on the basis of occupational clusters.
   b. organized on the basis of interest areas.
   c. restricted to occupations in business and industry.
   d. none of the above.

7. What process was used in the development of Alliance career exploration materials?

   a. field test, cooperative planning
   b. pilot test, cooperative planning, field test
   c. field test, cooperative planning, field test
   d. cooperative planning, pilot test, field test

8. In Alliance simulations, students primarily work:

   a. alone.
   b. in groups of 4-10 students.
   c. as a whole class.
   d. at home.

9. What is the recommended duration of an Alliance simulation?

   a. 2-3 instructional periods
   b. a semester
   c. 25 instructional periods
   d. 10-15 instructional periods

10. The function of the Introduction phase of Alliance simulations is to:

   a. allow students to select an occupational role.
   b. define the occupational cluster area.
   c. encourage further exploration.
   d. give students instructions for performing job tasks.

11. The primary purpose of the Preparation phase of Alliance simulations is to:

   a. describe simulation occupations so that students can make role choices.
   b. teach students skills they need to perform job tasks.
   c. introduce students to the occupational cluster represented by the simulation.
   d. all of the above.

12. Upon completion of a career exploration simulation, students are expected to:

   a. find part-time jobs.
   b. continue exploration of occupations.
   c. know whether they want to attend college.
   d. enter a vocational program.

Please circle the number that best represents your response to each statement.

5 - Strongly Agree
5 - Agree
3 - Neither Agree nor Disagree
2 - Disagree
1 - Strongly Disagree

		Strongly Agree . . . . . Strongly Disagree				
1.	I feel that I understand the major purposes and goals of the program.	5	4	3	2	1
2.	I now feel that I have an understanding of the basics of career development theory.	5	4	3	2	1
3.	It is important to make students aware of how basic skills relate to job performance.	5	4	3	2	1
4.	Career education concepts should be infused into instruction in academic subjects.	5	4	3	2	1
5.	Career education concepts could be easily infused into my curriculum.	5	4	3	2	1
6.	Simulation is a good technique for career exploration.	5	4	3	2	1
7.	Alliance career exploration materials are good tools for teaching students about jobs.	5	4	3	2	1
8.	The career exploration simulation that I reviewed will fit into my curriculum well.	5	4	3	2	1
9.	The career exploration materials will reinforce the basic skills that I teach.	5	4	3	2	1
10.	The staff development leaders conducted this session effectively.	5	4	3	2	1

STAFF DEVELOPMENT EVALUATION FORM
CAREER PLANNING SYSTEM

Please fill in the name of your school and your school district. Then circle the correct answer for each question.

School_____

School District_____

1. Most career development theorists agree that career development occurs in what sequence?

   a. career exploration, career awareness, career preparation
   b. career preparation, career exploration, career awareness
   c. career awareness, career preparation, career exploration
   d. none of the above

2. One of the major goals of the Career Planning System is for students to:

   a. learn how to interview for a job.
   b. choose a job.
   c. learn employability skills.
   d. select a high school course of study.

3. The Career Planning System is designed for:

   a. college-bound students.
   b. students bound for two-year postsecondary programs.
   c. students bound for vocational schools.
   d. all of the above.

4. Infusion of career education concepts would be most likely to occur in what subject area?

   a. language arts
   b. industrial arts
   c. math
   d. all of the above

5. What is the rationale for using the Career Planning System as a strategy for career exploration?

   a. The CPS is a good program for teaching basic skills.
   b. The CPS is a good program for job placement.
   c. The CPS allows students to "try out" various occupations.
   d. The CPS prepares students to perform real jobs.

6. The Career Planning System is:

   a. organized on the basis of occupational clusters.
   b. organized on the basis of interest groups.
   c. restricted to occupations in business and industry.
   d. none of the above.

7. What process was used in the development of the Career Planning System?

   a. field test, cooperative planning
   b. pilot test, cooperative planning, field test
   c. field test, cooperative planning, pilot test
   d. cooperative planning, pilot test, field test

8. The Career Planning System is:

   a. a career exploration program in which students work in groups of 4-10.
   b. an individualized career exploration program.
   c. a career exploration program in which students work as an entire class.
   d. a home-instruction career exploration program.

9. What is the recommended duration of the Career Planning System?

   a. 2-3 instructional periods
   b. the whole school year
   c. 25 instructional periods
   d. 10-15 instructional periods

10. The function of a CPS "Probe" is to:

    a. allow students to perform in a work role.
    b. describe an occupational interest group.
    c. help students keep records of career exploration experiences.
    d. give information about a specific occupation, working conditions, salary, etc.

11. The function of a CPS "Brief" is to:

    a. allow students to perform in a work role.
    b. describe an occupational interest group.
    c. help students keep records of career exploration experiences.
    d. give information about a specific occupation, working conditions, salary, etc.

12. Upon completion of the CPS, students are expected to:

    a. find part-time jobs.
    b. continue exploration of occupations.
    c. know whether they want to attend college.
    d. enter a vocational program.

Please circle the number that best represents your response to each statement.

5 - Strongly Agree
4 - Agree
3 - Neither Agree nor Disagree
2 - Disagree
1 - Strongly Disagree

		Strongly Agree . . . . . Strongly Disagree				
1.	I feel that I understand the major purposes and goals of the program.	5	4	3	2	1
2.	I now feel that I have an understanding of the basis of career development theory.	5	4	3	2	1
3.	It is important to make students aware of how basic skills relate to job performance.	5	4	3	2	1
4.	Career education concepts should be infused into instruction in academic subjects.	5	4	3	2	1
5.	Career education concepts could be easily infused into my curriculum.	5	4	3	2	1
6.	Career exploration should be organized around interest areas.	5	4	3	2	1
7.	The CPS is a good tool for helping students learn about jobs.	5	4	3	2	1
8.	I can see how the CPS will fit into my curriculum.	5	4	3	2	1
9.	The CPS will reinforce the basic skills that I teach.	5	4	3	2	1
10.	The staff development leaders conducted this session effectively.	5	4	3	2	1

Appendix C

Sample Student Test

CONVENTION (Revised Edition)
Student Test Booklet

YOUR NAME_____

YOUR TEACHER'S NAME_____

YOUR CITY_____

Directions

This is a test about different jobs people do. It is a test to find out what you know. And it is a test to find out how you feel about these jobs.

Read each question carefully. Then read the different answers. Decide which answer is best. Then circle the letter next to that answer.

Let's try one for practice.

Which person works for the Post Office?

A. Firefighter
B. Police Officer
C. Mail Carrier
D. Salesclerk

Which answer is best? . . . Yes, Mail Carrier is the best answer. So, you would circle the letter "C" next to Mail Carrier.

Now, start the test. Read and answer all of the questions.

1. Which of the following occupations belongs to the field of PERSONAL SERVICES?

   A. flight attendant
   B. minister
   C. dry cleaner
   D. all of the above

Which of the following are types of PERSONAL SERVICES?

		Yes	I don't know	No
2.	services that take place in the home	A	B	C
3.	hospitality services	A	B	C
4.	spiritual guidance services	A	B	C
5.	portering services	A	B	C
6.	child care services	A	B	C

7. Which of the following is an appetizer?

   A. green beans
   B. fried chicken
   C. chocolate cake
   D. tomato juice

8. Restaurants buy food from

   A. supermarkets
   B. wholesale suppliers
   C. farmers
   D. none of the above

9. In what kind of restaurant do customers serve themselves?

   A. table service
   B. drive-in
   C. cafeteria
   D. counter service

10. Permanent customers would most likely be found in a

   A. commercial hotel
   B. resort hotel
   C. residential hotel
   D. motor hotel

11. The laundry and dry cleaning service in a hotel is called

   A. valet service
   B. maid service
   C. personal service
   D. room service

12. Together, which two industries are called the "hospitality industry"?

   A. hotel operation and food service
   B. recreation and hotel operation
   C. food service and transportation
   D. transportation and recreation

13. Which worker is in charge of the linen room inventory?

   A. room clerk
   B. maid
   C. cashier
   D. housekeeper

14. Who must be good at doing arithmetic?

A. auditor
B. maid
C. cook
D. banquet manager

15. Who usually works in the sales department of a large hotel?

A. housekeeper
B. cashier
C. banquet manager
D. all of the above

16. Which worker carries baggage for hotel guests?

A. maid
B. bellhop
C. headwaiter
D. reservation clerk

17. Which worker in a hotel/restaurant sits <u>most</u> of the time?

A. telephone operator
B. room clerk
C. waiter
D. cook

18. Which hotel/restaurant job involves working outdoors the <u>most</u>?

A. doorkeeper
B. chef
C. maid
D. cashier

19. Which hotel/restaurant worker could be called at any hour of the day or night to do his or her job?

A. electrician
B. house detective
C. plumber
D. all of the above

20. Which is an <u>entry-level</u> job in the hotel/restaurant industry?

A. chef
B. maid
C. sales manager
D. purchasing steward

21. Which job in the hotel/restaurant industry requires the most education and/or experience?

A. chef
B. auditor
C. elevator operator
D. waitress

22. Which affects the success of both a hotel doorkeeper and a banquet manager?

A. management skills
B. good math skills
C. communications skills
D. organization skills

23. Which is an <u>interpersonal skill</u> needed by workers in PERSONAL SERVICES?

A. ability to get along with others
B. being friendly
C. showing respect for others
D. all of the above

24. Room rates at a particular hotel are listed at the right. With these rates, what is the lowest charge six people would pay?

A. $48
B. $108
C. $54
D. $66

Rates		
Twin	- 1 person	$18.00
Twin	- 2 persons	$22.00
Double	- 2 persons	$24.00
Double	- 3 persons	$28.00
Double	- 4 persons	$32.00
Suite	- 4 persons	$50.00

25. Suppose 80 dinner guests at a restaurant are expected to order shrimp. If four ounces of shrimp are used per serving, how many ounces of shrimp are needed?

A. 32 ounces
B. 160 ounces
C. 80 ounces
D. 320 ounces

How would you rate your knowledge of the WORK THAT IS DONE in each of these jobs?

		Very Good	Good	Average	Poor	Can't Say
26.	Reservation Room Clerk	A	B	C	D	E
27.	Cashier	A	B	C	D	E
28.	Housekeeper	A	B	C	D	E
29.	Maid	A	B	C	D	E
30.	Chef	A	B	C	D	E
31.	Cook	A	B	C	D	E
32.	Waiter/Waitress	A	B	C	D	E
33.	Banquet Manager	A	B	C	D	E

How would you rate your knowledge of the INTERESTS of workers in each of these jobs?

		Very Good	Good	Average	Poor	Can't Say
34.	Reservation Room Clerk	A	B	C	D	E
35.	Cashier	A	B	C	D	E
36.	Housekeeper	A	B	C	D	E
37.	Maid	A	B	C	D	E
38.	Chef	A	B	C	D	E
39.	Cook	A	B	C	D	E
40.	Waiter/Waitress	A	B	C	D	E
41.	Banquet Manager	A	B	C	D	E

How SATISFIED do you feel you would be working in each of these jobs?

		Very Satisfied	Satisfied	Somewhat Satisfied	Not Satisfied	Can't Say
42.	Reservation Room Clerk	A	B	C	D	E
43.	Cashier	A	B	C	D	E
44.	Housekeeper	A	B	C	D	E
45.	Maid	A	B	C	D	E
46.	Chef	A	B	C	D	E
47.	Cook	A	B	C	D	E
48.	Waiter/Waitress	A	B	C	D	E
49.	Banquet Manager	A	B	C	D	E

50. Has this simulation helped you learn more about what workers do in their jobs?

A. Yes, very much
B. Yes
C. Yes, a little
D. No
E. I can't say

51. Has this simulation helped you learn more about what different workers like and what they can do?

A. Yes, very much
B. Yes
C. Yes, a little
D. No
E. I can't say

52. Has this simulation helped you learn about the jobs you like and the jobs you don't like?

A. Yes, very much
B. Yes
C. Yes, a little
D. No
E. I can't say

53. Has this simulation helped you think about jobs you might choose?

A. Yes, very much
B. Yes
C. Yes, a little
D. No
E. I can't say

54. Did you like this simulation?

A. Yes, very much
B. Yes
C. Yes, a little
D. No
E. I can't say

55. How hard were the jobs you did in this simulation?

A. Too hard
B. About right, most of the time
C. About right, some of the time
D. Too easy
E. I can't say

56. Do you think this simulation is a good way to learn about jobs?

A. Yes, for sure
B. Yes
C. Yes, maybe
D. No
E. I can't say

57. Do you think that other students would like this simulation?

A. Yes, for sure
B. Yes
C. Yes, maybe
D. No
E. I can't say

58. Would you like to try another simulation that has different jobs?

A. Yes, very much
B. Yes
C. Yes, maybe
D. No
E. I can't say